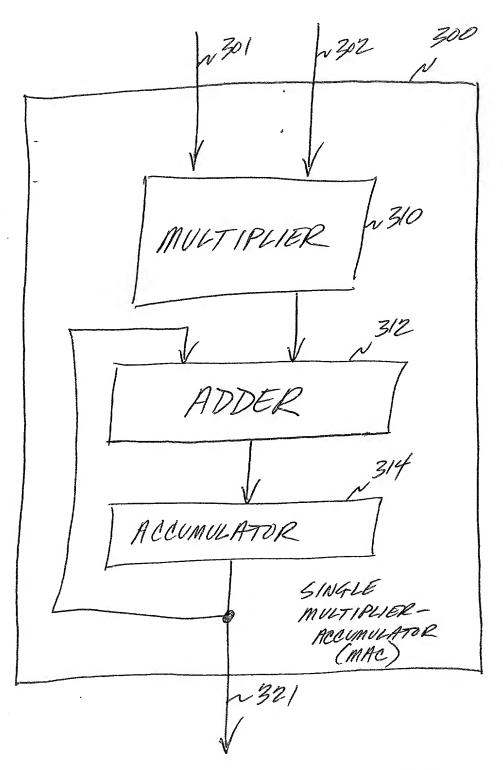
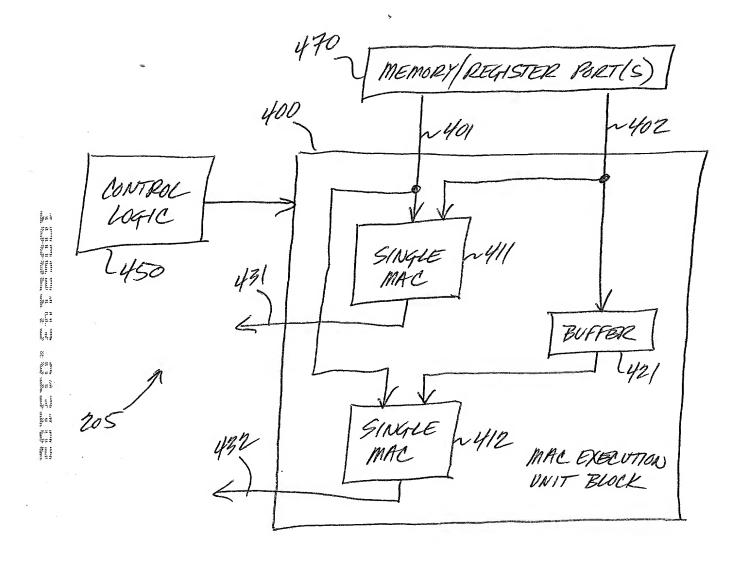
MEMORY CONTROLLER N102 ~110 INTERFACE LOGIC 19 March Harde Breit, March Charles CACHE LOGIC N 200 ~204. N202 INSTRUCTION XECUTION LOGIC FERCH/DECODE LOGIC MULTIPLIER-ACCUMULATOR EXECUTION UNIT N 206 INSTRUCTION MULTIPLIER-PRESSING ACCUMULATOR LOGIC EXECUTION UNIT PROCESSOR

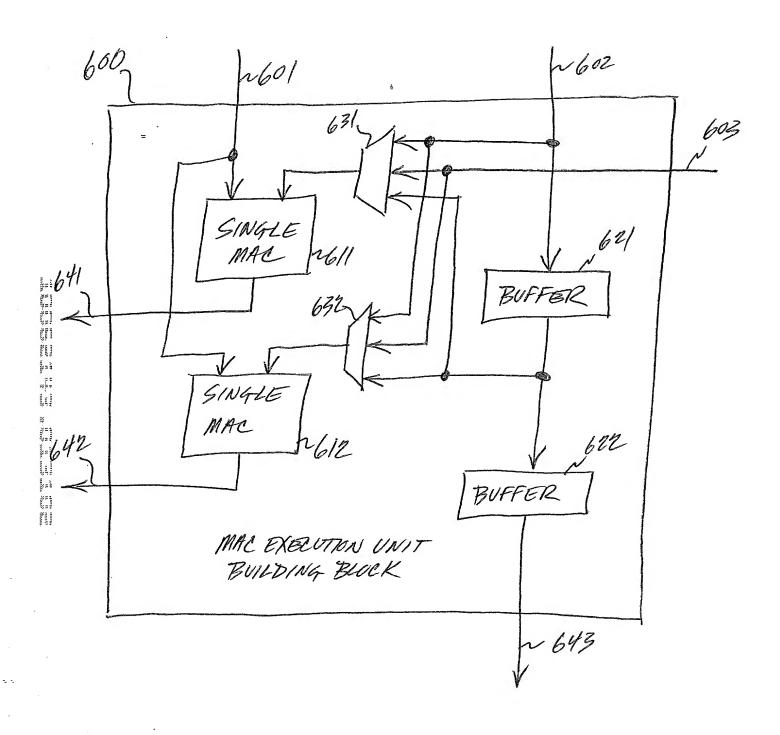
F19.2





F16.4

N502 FETCH AND DECODE MULTIPLIER-ACCUMULATOR (MAC) SINGLE INSTRUCTION MULTIPLE DATA (SIMD) INSTRUCTION FETCH AT LEAST FIRST AND SECOND INPUT DATA RECEIVE THE FETCHED AT LEAST FIRST AND SECOND INPUT DATA AND PERFORM ONE OR MORE CURRENT MULTIPLY-ACCUMULATE OPERATIONS ON N H H B ONE OR MORE OF THE RECEIVED AT LEAST FIRST AND SECOND INPUT DATA AND/OR ON ONE OR MORE SAVED INPUT DATA RECEIVED FOR ONE OR MORE Name of the last PRIOR MULTIPLY-ACCUMULATE OPERATIONS Name of the least SAVE ONE OR MORE OF THE RECEIVED AT LEAST FIRST AND SECOND INPUT DATA AND/OR ONE OR MORE SAVED INPUT DATA FOR RE-USE FOR ONE OR MORE LATER MULTIPLY-ACCUMULATE OPERATIONS ANY MORE **MULTIPLY-ACCUMULATE** OPERATIONS TO BE PERFORMED 512 NO READ RESULTING ACCUMULATED DATA

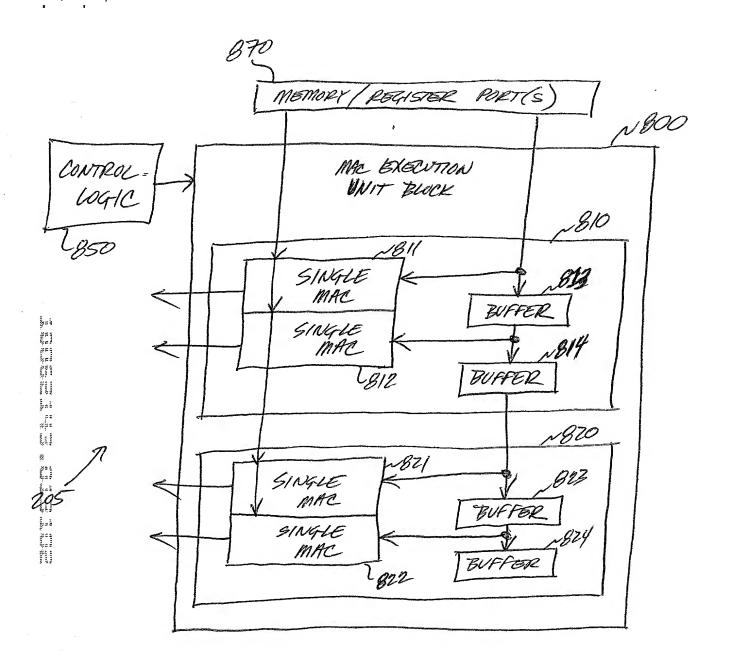


F14.6

700 1601 1602 SINGLE NOIL BUFFER 12 Mars 12 M SINGLE MAC MAC EXECUTION BUFFER UNIT BUILDING BLOCK 1643

F14, 7

44 44

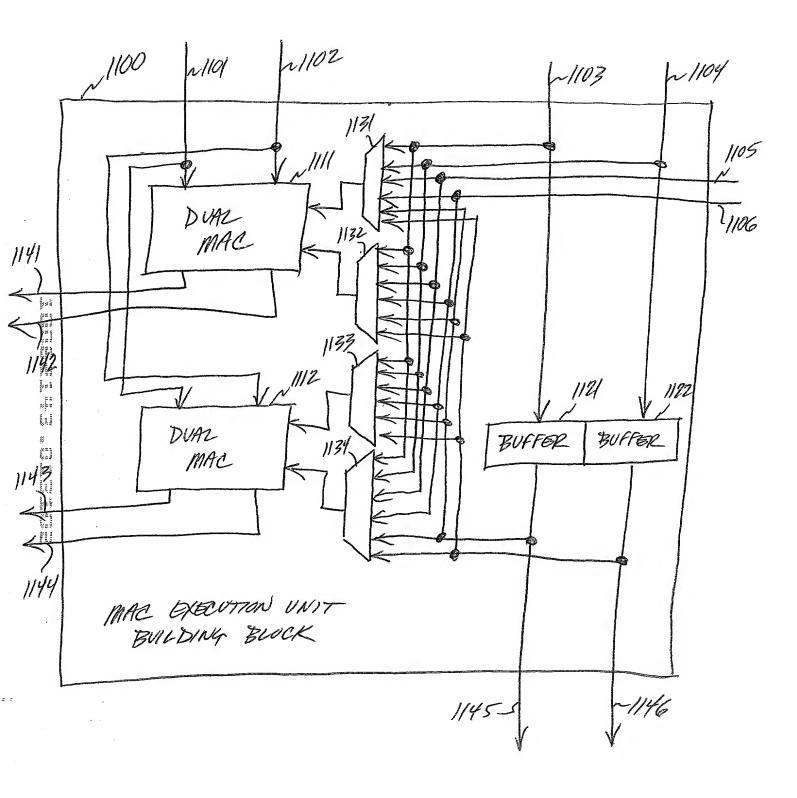


F14.8

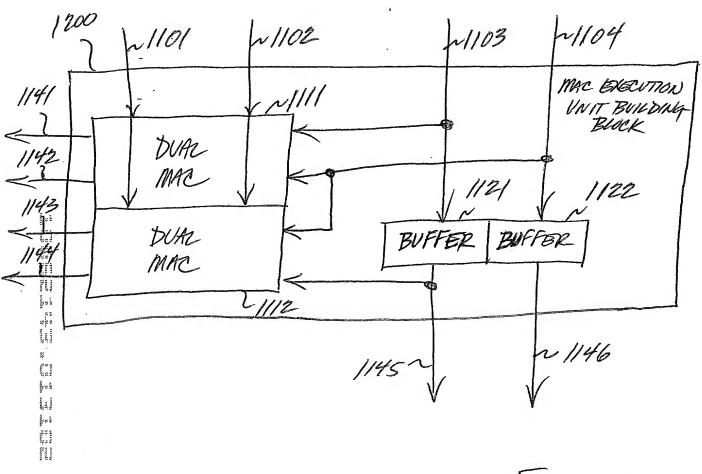


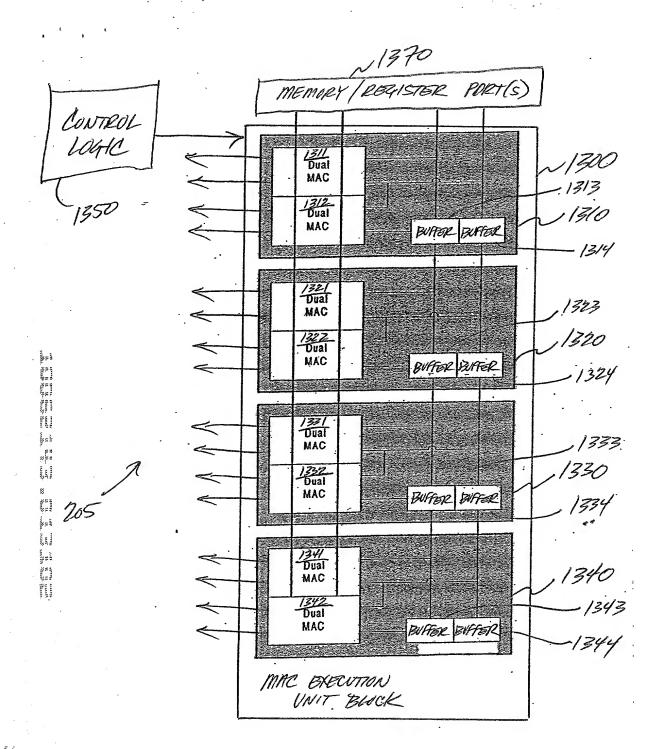
		on Cycle N	Computation	n Cycle N+1	Computation	n Cycle N+2
MAC	1 <sup>st</sup> MAC	2 <sup>nd</sup> MAC	1 <sup>st</sup> MAC	2 <sup>nd</sup> MAC	1 <sup>st</sup> MAC	2 <sup>nd</sup> MAC
	Input	Input	Input	Input	Input	Input
811: y(3)	c(31)	x(-28)	c(30)	x(-27)	c(29)	x(-26)
812: y(2)	c(31)	x(-29)	c(30)	x(-28)	c(29)	x(-27)
821: y(1)	c(31)	x(-30)	c(30)	x(-29)	c(29)	x(-28)
822: y(0)	c(31)	x(-31)	c(30)	x(-30)	c(29)	x(-29)

1003 W1004 N1000 100/ 1002 N/010 MULTIPLIER He s March Marth press merst M. M. B. S. March Baut. N/012 ADDER ADDER i na 10 1 2 1022 ~1014 1024 [] ACCUMULATOR ingi. ACCUMULATOR 100 DVAZ MULTIPLIER-ROCUMUITER (MAC) Name of Street 1032



F14. //





	T		) ±	16	31:		5	16	3	<del>(</del> +	6	70	6	<u>-</u>
5		1 Y	Tuni	o direction	7-\x	7-)x	x(-2)	7	(C7-)v	x(-24)	(\$C-)A	7 0	(07-)x	x(-27)
n Cycle N±2		Z Z	Input	Thomas Co	(17)	(77)3	c(27)	(10)0	(17)0	c(7./)	(20)	(17)0	0(71)	c(27)
Commitation	DIE Jud	MAC	Inniit	v(_10)	(0C)*	(07-)v	x(-21)	(((')^	(77-)	X(-73)	x(-24)	× 25)	(C7_)V	x(-26)
		MAC	Input	000	900	(07)	c(26)	(90)	(02)	C(20)	c(26)	(90)	(27)	c(26)
1		MAC	Inout	x(-22)	x(-23)	(C7_)v	x(-24)	(5C-)x	(20)	(07-)v	x(-27)	x(-28)	(0.2)	x(-29)
n Cycle N+	2nd	MAC	Infout	c(29)	(00)	(22)	c(23)	c(29)	(00)	(67)	c(29)	(67)3		c(73)
Computation (	3 <sup>rd</sup>	MAC	Input	x(-21)	x(-22)	(20)	X(-73)	x(-24)	v(25)	(C7_\v	x(-5e)	x(-27)	(00)	(87-)X
	•	MAC	Input	c(28)	c(28)	(60)	C(28)	c(28)	(86)3	(07)0	c(28)	c(28)	(80)	c(20)
1-7	4 <sup>th</sup>	MAC	Input	x(-24)	x(-25)	(90)**	(07-)v	x(-27)	x(-28)		(47-)x	x(-30)	*( 21)	(1C-)v
Computation Cycle N	$2^{nd}$	MAC	Input	c(31)	c(31)	(131)	(101)	c(31)	c(31)		c(31)	c(31)	0(21)	(101)
Computati	$3^{rd}$	MAC	Input	x(-23)	x(-24)	(50-)~	(C7_)V	x(-26)	x(-27)	(00)	(87-)X	x(-29)	~(-30)	(0C-)W
	$1^{st}$	MAC	Input	c(30)	c(30)	(30)	(00)	c(30)	c(30)	(00)0	(nc)a	c(30)	(08)	(00)
	MAC			1311: y(7)	1312: y(6)	1321· v(5)	1999	1322: y(4)	1331: y(3)	1220.00	1332. y(2)	1341: y(1)	1342· v(0)	7/67

F/4 /4

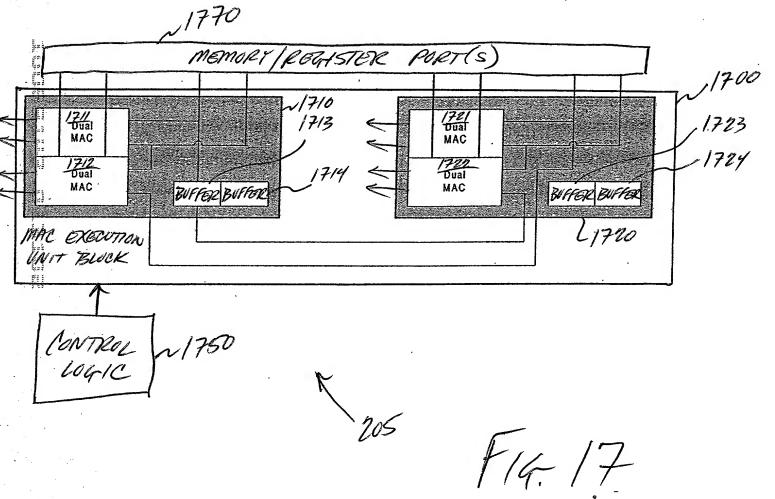
John J

REGISTER PORT(S) MEMORY, CONTROL /<u>5//</u> Dual MAC *1512* Dual BUFFER BUFFER MAC /SZ/ Dual MAC *1522* Dual Arrey story prote many set it is it, may MAC BUFFER BUFFER /<u>53/</u> Dual MAC Com the street the street comp 1532 Dual MAC BUFFER BUFFER 1541 Oual MAC *1542* Dual MAC MAC EXECUTION UNIT BIOCK

_												
		Computati	Computation Cycle N		0	Computation Cycle N+	1 Cycle N+	.1	S	Computation (	Cwcle N+2	-2
	1 st	$3^{\mathrm{rd}}$	$2^{nd}$	4 <sup>th</sup>	$1^{st}$	$3^{\mathrm{rd}}$	$2^{nd}$	1	1 st	3rd	puć	
	MAC	MAC	MAC	MAC	MAC	MAC	MAC	MAC	MAC	MAC	MAC	MAC
	Input	Input	Input	Input	Input	Input	Input	Input	Input	Input	Input	Input
511: y(3) <sub>r</sub>	$c(31)_{\rm r}$	$x(-28)_r$	$c(31)_{i}$	$x(-28)_{i}$	c(30) <sub>r</sub>	$x(-27)_{r}$	c(30);	x(-27);	c(29),	x(-26).	c(29):	x(-26);
512: y(3) <sub>i</sub>	$c(31)_{\rm r}$	$x(-28)_{i}$	$c(31)_{i}$	x(-28) <sub>r</sub>	$c(30)_{\rm r}$	$x(-27)_i$	c(30);	x(-27) <sub>r</sub>	c(29),	x(-26);	c(29);	x(-26)
1521: y(2) <sub>r</sub>	$c(31)_{\rm r}$	$x(-29)_r$	$c(31)_{i}$	$x(-29)_{i}$	c(30) <sub>r</sub>	x(-28) <sub>r</sub>	c(30);	x(-28);	c(29).	x(-27).	c(29):	x(-27);
$1522: y(2)_i$	$c(31)_{\rm r}$	x(-29) <sub>i</sub>	c(31) <sub>i</sub>	x(-29) <sub>r</sub>	c(30),	x(-28);	c(30);	x(-28).	c(29).	x(-27);	2(20)	(LC-)^
1531: y(1) <sub>r</sub>	$c(31)_{\rm r}$	$x(-30)_{r}$	c(31) <sub>i</sub>	$x(-30)_{i}$	c(30),	x(-29),	c(30);	x(-29);	c(29).	x(-28),	2(29):	x(-2/)r x(-28).
532: y(1) <sub>i</sub>	$c(31)_{\rm r}$	$x(-30)_{i}$	$c(31)_{i}$	x(-30) <sub>r</sub>	c(30) <sub>r</sub>	x(-29);	c(30);	x(-29).	c(29).	x(-28);	2(00)	x(-78)
541: y(0) <sub>r</sub>	$c(31)_{\rm r}$	$x(-31)_{r}$	c(31);	$x(-31)_{i}$	c(30) <sub>r</sub>	$x(-30)_{r}$	c(30);	x(-30);	c(29).	x(-29).	(60)	x(-70).
1542: y(0) <sub>i</sub>	$c(31)_{\rm r}$	$(x(-31)_i)$	$c(31)_{i}$	$x(-31)_{r}$	c(30) <sub>r</sub>	x(-30);	c(30);	x(-30).	c(29).	x(-29);	(60)	x(-20)
					-			- * `	7		-	1

FIF 16

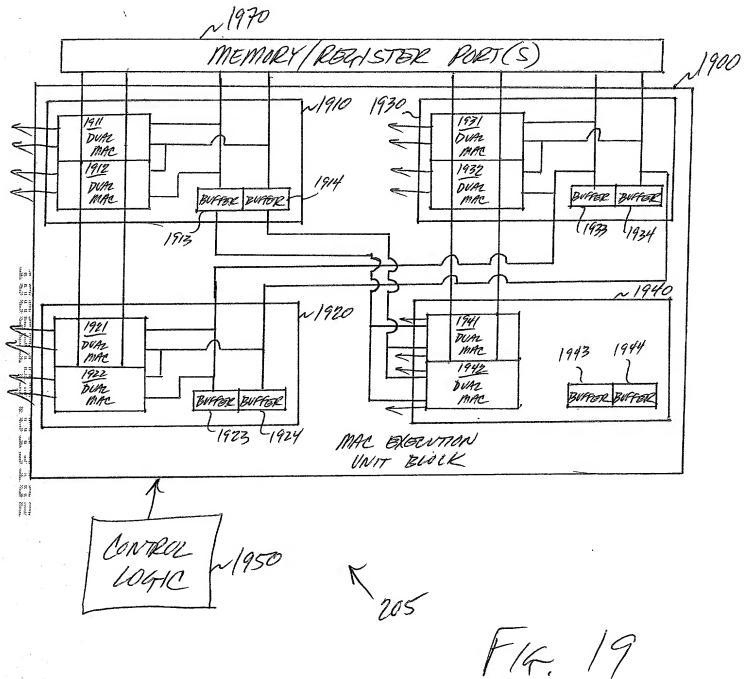
009





				Computati	on Cycle N				
MAC	1 <sup>st</sup>	3 <sup>rd</sup>	2 <sup>nd</sup>	4 <sup>th</sup>	MAC	1 <sup>st</sup>	3 <sup>rd</sup>	2 <sup>nd</sup>	4 <sup>th</sup>
~	MAC	MAC	MAC	MAC		MAC	MAC	MAC	MAC
	Input	Input	Input	Input		Input	Input	Input	Input
1711: y(1)	c(28)	x(-27)	c(29)	x(-28)	1721: y(1)	c(30)	x(-29)	c(31)	x(-30)
1712: y(0)	c(28)	x(-28)	c(29)	x(-29)	1722: y(0)	c(30)	x(-30)	c(31)	x(-31)
			(	Computation	n Cycle N+1				
MAC	1 <sup>st</sup>	3 <sup>rd</sup>	$2^{\text{nd}}$	4 <sup>th</sup>	MAC	1 <sup>st</sup>	3 <sup>rd</sup>	$2^{\rm nd}$	4 <sup>th</sup>
	MAC	MAC	MAC	MAC		MAC	MAC	MAC	MAC
1.1	Input	Input	Input	Input		Input	Input	Input	Input
1711: y(1)	c(24)	x(-23)	c(25)	x(-24)	1721: y(1)	c(26)	x(-25)	c(27)	x(-26)
1712: y(0)	c(24)	x(-24)	c(25)	x(-25)	1722: y(0)	c(26)	∕x(-26) <sup>~</sup>	c(27)	x(-27)
2			(	Computation	n Cycle N+2				
MAC	1 <sup>st</sup>	· 3 <sup>rd</sup>	2 <sup>nd</sup>	4 <sup>th</sup>	MAC	1 <sup>st</sup>	3 <sup>rd</sup>	2 <sup>nd</sup>	4 <sup>th</sup>
	MAC	MAC	MAC	MAC		MAC	MAC	MAC	MAC
eren eren H. H. Caro. Vond Strake	Input	Input	Input	Input		Input	Input	Input	Input
1711: y(1)	c(20)	x(-19)	c(21)	x(-20)	1721: y(1)	c(22)	x(-21)	c(23)	x(-22)
1712: y(0)	c(20)	x(-20)	c(21)	x(-21)	1722: y(0)	c(22)	x(-22)	c(23)	x(-23)

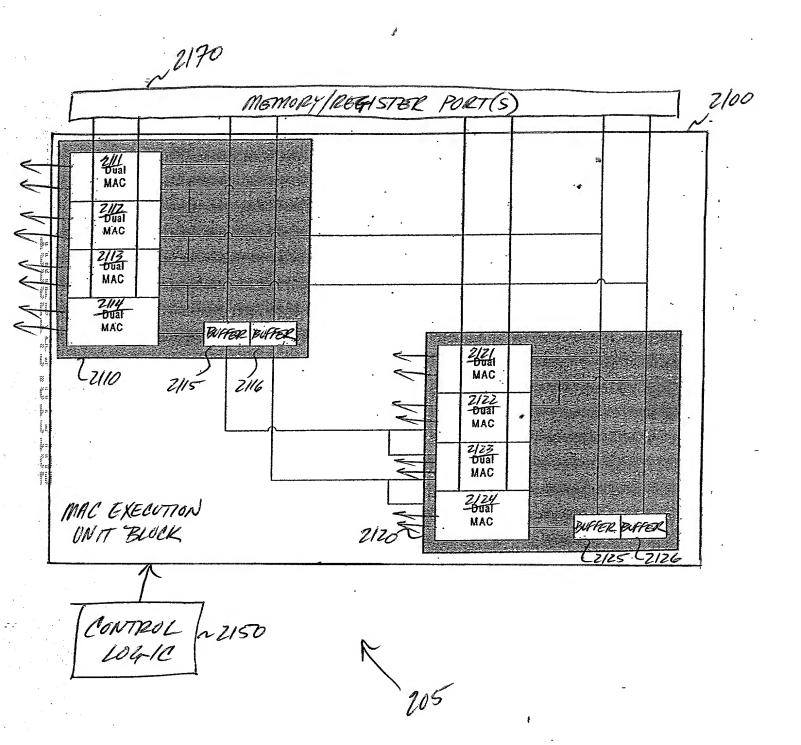
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					on Cycle N			·	<del></del>
MAC	1 <sup>st</sup>	3 <sup>rd</sup>	2 <sup>nd</sup>	4 <sup>th</sup>	MAC	1 <sup>st</sup>	3 <sup>rd</sup>	2 <sup>nd</sup>	4 <sup>th</sup>
	MAC	MAC	MAC	MAC		MAC	MAC	MAC	MAC
	Input	Input	Input	Input		Input	Input	Input	Input
1911: y(1) <sub>r</sub>	$c(30)_{r}$	$x(-29)_{r}$	$c(30)_1$	$x(-29)_{i}$	1931: $y(1)_r$	$c(31)_{r}$	$x(-30)_{r}$	c(31) <sub>i</sub>	$x(-30)_{i}$
1912: y(1) <sub>i</sub>	$c(30)_{r}$	$x(-29)_{i}$	$c(30)_{i}$	$x(-29)_{r}$	1932: y(1) <sub>i</sub>	$c(31)_{r}$	$x(-30)_{i}$	$c(31)_{i}$	$x(-30)_{r}$
1921: y(0) <sub>r</sub>	$c(30)_{r}$	$x(-30)_{r}$	$c(30)_{i}$	$x(-30)_{i}$	1941: y(0) <sub>r</sub>	$c(31)_{r}$	$x(-31)_{r}$	$c(31)_{i}$	$x(-31)_{i}$
1922: y(0) <sub>i</sub>	$c(30)_{r}$	$x(-30)_{i}$	$c(30)_{i}$	$x(-30)_{r}$	1942: y(0) <sub>i</sub>	$c(31)_{r}$	$x(-31)_{i}$	$c(31)_{i}$	$(x(-31)_r)$
				A	n Cycle N+1				
MAC	1 <sup>st</sup>	3 <sup>rd</sup>	$2^{\rm nd}$	4 <sup>th</sup>	MAC	1 <sup>st</sup>	3 <sup>rd</sup>	$2^{\text{nd}}$	4 <sup>th</sup>
	MAC	MAC	MAC	MAC		MAC	MAC	MAC	MAC
	Input	Input	Input	Input		Input	Input	Input	Input
1911: y(1) <sub>r</sub>	c(28) <sub>r</sub>	$x(-27)_{r}$	$c(28)_{i}$	$x(-27)_{i}$	1931: y(1) <sub>r</sub>	$c(29)_{r}$	$x(-28)_{r}$	$c(29)_{i}$	$x(-28)_{i}$
1912: y(1) <sub>i</sub>	$c(28)_{r}$	$x(-27)_{i}$	$c(28)_{i}$	$x(-27)_{r}$	1932: y(1) <sub>i</sub>	$c(29)_{r}$	$x(-28)_{i}$	$c(29)_{i}$	$x(-28)_{r}$
1921: y(0) <sub>r</sub>	$c(28)_{r}$	$x(-28)_{r}$	$c(28)_{i}$	$x(-28)_{i}$	1941: y(0) <sub>r</sub>	$c(29)_{r}$	$x(-29)_r$	$c(29)_{i}$	$x(-29)_{i}$
1922: y(0) <sub>i</sub>	$c(28)_{r}$	$x(-28)_{i}$	$c(28)_i$	$x(-28)_{r}$	1942: y(0) <sub>i</sub>	$c(29)_{r}$	$x(-29)_1$	$c(29)_{i}$	$x(-29)_{r}$
					n Cycle N+2				
MAC	1 <sup>st</sup>	$3^{\rm rd}$	2 <sup>nd</sup>	4 <sup>th</sup>	MAC	1 <sup>st</sup>	$3^{\rm rd}$	$2^{\rm nd}$	4 <sup>th</sup>
American American	MAC	MAC	MAC	MAC		MAC	MAC	MAC	MAC
35	Input	Input	Input	Input		Input	Input	Input	Input
1911: y(1) <sub>r</sub>	$c(26)_r$	$(-25)_{r}$	c(26) <sub>i</sub>	$x(-25)_{i}$	1931: y(1) <sub>r</sub>	$c(27)_{r}$	$x(-26)_{r}$	c(27) <sub>i</sub>	x(-26) <sub>i</sub>
1912: y(1) <sub>i</sub>	c(26) <sub>r</sub>	$x(-25)_{i}$	c(26) <sub>i</sub>	$x(-25)_{r}$	1932: y(1) <sub>i</sub>	$c(27)_{r}$	$x(-26)_{i}$	$c(27)_i$	$x(-26)_{r}$
1921: $y(0)_r$	$c(26)_r$	$x(-26)_{r}$	c(26) <sub>i</sub>	$x(-26)_{i}$	1941: y(0) <sub>r</sub>	$c(27)_{r}$	$x(-27)_{r}$	$c(27)_{i}$	$x(-27)_{i}$
1922: y(0) <sub>i</sub>	$c(26)_r$	$x(-26)_{i}$	$c(26)_i$	$x(-26)_{r}$	1942: y(0) <sub>i</sub>	$c(27)_{r}$	$x(-27)_{i}$	$c(27)_{i}$	$x(-27)_{r}$
House House									

F19, 20

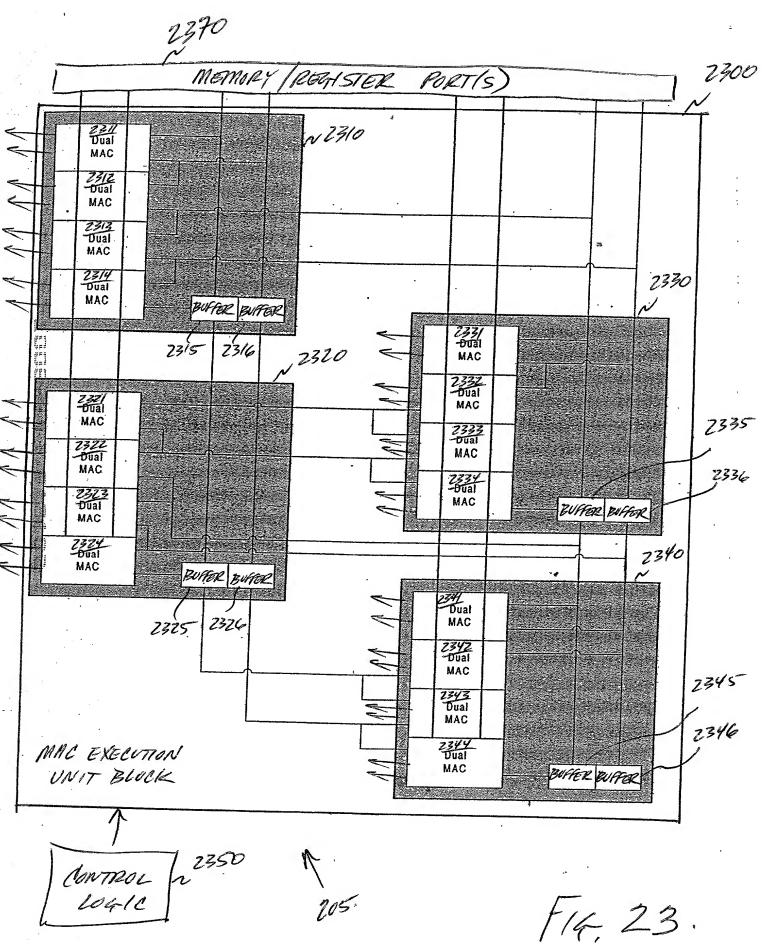


F14,21



				Computati	on Cycle N				
MAC	1 <sup>st</sup>	3 <sup>rd</sup>	2 <sup>nd</sup>	4 <sup>th</sup>	MAC	1 <sup>st</sup>	3 <sup>rd</sup>	2 <sup>nd</sup>	4 <sup>th</sup>
	MAC	MAC	MAC	MAC		MAC	MAC	MAC	MAC
	Input	Input	Input	Input		Input	Input	Input	Input
2111: y(3)	c(28)	x(-25)	c(29)	x(-26)	2121: y(3)	c(30)	x(-27)	c(31)	x(-28)
2112: y(2)	c(28)	x(-26)	c(29)	x(-27)	2122: y(2)	c(30)	x(-28)	c(31)	x(-29)
2113: y(1)	c(28)	x(-27)	c(29)	x(-28)	2123: y(1)	c(30)	x(-29)	c(31)	x(-30)
2114: y(0)	c(28)	x(-28)	c(29)	x(-29)	2124: y(0)	c(30)	x(-30)	c(31)	x(-31)
				Computatio	n Cycle N+1				
MAC	1 <sup>st</sup>	3 <sup>rd</sup>	2 <sup>nd</sup>	4 <sup>th</sup>	MAC	1 <sup>st</sup>	3 <sup>rd</sup>	$2^{\rm nd}$	4 <sup>th</sup>
`	MAC	MAC	MAC	MAC		MAC	MAC	MAC	MAC
	Input	Input	Input	Input		Input	Input	Input	Input
2111: y(3)	c(24)	x(-21)	c(25)	x(-22)	2121: y(3)	c(26)	x(-23)	c(27)	x(-24)
2112: y(2)	c(24)	x(-22)	c(25)	x(-23)	2122: y(2)	c(26)	x(-24)	c(27)	x(-25)
<b>2</b> 113: y(1)	c(24)	x(-23)	c(25)	x(-24)	2123: y(1)	c(26)	x(-25)	c(27)	x(-26)
2114: y(0)	c(24)	x(-24)	c(25)	x(-25)	2124: y(0)	c(26)	x(-26)	c(27)	x(-27)
on Il					n Cycle N+2				
MAC	1 <sup>st</sup>	3 <sup>rd</sup>	2 <sup>nd</sup>	4 <sup>th</sup>	MAC	1 <sup>st</sup>	3 <sup>rd</sup>	$2^{\rm nd}$	4 <sup>th</sup>
	MAC	MAC	MAC	MAC		MAC	MAC	MAC	MAC
# #===	Input	Input	Input	Input		Input	Input	Input	Input
2111: y(3)	c(20)	x(-17)	c(21)	x(-18)	2121: y(3)	c(22)	x(-19)	c(23)	x(-20)
2112: y(2)	c(20)	x(-18)	c(21)	x(-19)	2122: y(2)	c(22)	x(-20)	c(23)	x(-21)
2113: y(1)	c(20)	x(-19)	c(21)	x(-20)	2123: y(1)	c(22)	x(-21)	c(23)	x(-22)
2114: y(0)	c(20)	x(-20)	c(21)	x(-21)	2124: y(0)	c(22)	x(-22)	c(23)	x(-23)
7,11									

F19. 22





				Computati	on Cycle N				
MAC	1 <sup>st</sup>	3 <sup>rd</sup>	2 <sup>nd</sup>	4 <sup>th</sup>	MAC	$1^{\mathrm{st}}$	3 <sup>rd</sup>	2 <sup>nd</sup>	4 <sup>th</sup>
	MAC	MAC	MAC	MAC		MAC	MAC	MAC	MAC
	Input	Input	Input	Input		Input	Input	Input	Input
2311: y(7)	c(28)	x(-21)	c(29)	x(-22)	2331: y(7)	c(30)	x(-23)	c(31)	x(-24)
2312: y(6)	c(28)	x(-22)	c(29)	x(-23)	2332: y(6)	c(30)	x(-24)	c(31)	x(-25)
2313: y(5)	c(28)	x(-23)	c(29)	x(-24)	2333: y(5)	c(30)	x(-25)	c(31)	x(-26)
2314: y(4)	c(28)	x(-24)	c(29)	x(-25)	2334: y(4)	c(30)	x(-26)	c(31)	x(-27)
2321: y(3)	c(28)	x(-25)	c(29)	x(-26)	2341: y(3)	c(30)	x(-27)	c(31)	x(-28)
2322: y(2)	c(28)	x(-26)	c(29)	x(-27)	2342: y(2)	c(30)	x(-28)	c(31)	x(-29)
2323: y(1)	c(28)	x(-27)	c(29)	x(-28)	2343: y(1)	c(30)	x(-29)	c(31)	x(-30)
2324: y(0)	c(28)	x(-28)	c(29)	x(-29)	2344: y(0)	c(30)	x(-30)	c(31)	x(-31)
6.22 200					n Cycle N+1				
MAC	1 <sup>st</sup>	3 <sup>rd</sup>	2 <sup>nd</sup>	4 <sup>th</sup>	MAC	$1^{st}$	3 <sup>rd</sup>	2 <sup>nd</sup>	4 <sup>th</sup>
355 355 355	MAC	MAC	MAC	MAC		MAC	MAC	MAC	MAC
No.	Input	Input	Input	Input		Input	Input	Input	Input
2311: y(7)	c(24)	x(-17)	c(25)	x(-18)	2331: y(7)	c(26)	x(-19)	c(27)	x(-20)
2312: y(6)	c(24)	x(-18)	c(25)	x(-19)	2332: y(6)	c(26)	x(-20)	c(27)	x(-21)
2313: y(5)	c(24)	x(-19)	c(25)	x(-20)	2333: y(5)	c(26)	x(-21)	c(27)	x(-22)
2314: y(4)	c(24)	x(-20)	c(25)	x(-21)	2334: y(4)	c(26)	x(-22)	c(27)	x(-23)
2321: y(3)	c(24)	x(-21)	c(25)	x(-22)	2341: y(3)	c(26)	x(-23)	c(27)	x(-24)
2322: y(2)	c(24)	x(-22)	c(25)	x(-23)	2342: y(2)	c(26)	x(-24)	c(27)	x(-25)
2323: y(1)	c(24)	x(-23)	c(25)	x(-24)	2343: y(1)	c(26)	x(-25)	c(27)	x(-26)
2324: y(0)	c(24)	x(-24)	c(25)	x(-25)	2344: y(0)	c(26)	x(-26)	c(27)	x(-27)
Ref Pil					n Cycle N+2				
MAC	1 <sup>st</sup>	3 <sup>rd</sup>	2 <sup>nd</sup>	4 <sup>th</sup>	MAC	1 <sup>st</sup>	3 <sup>rd</sup>	$2^{\rm nd}$	4 <sup>th</sup>
	MAC	MAC	MAC	MAC		MAC	MAC	MAC	MAC
	Input	Input	Input	Input		Input	Input	Input	Input
2311: y(7)	c(20)	x(-13)	c(21)	x(-14)	2331: y(7)	c(22)	x(-15)	c(23)	x(-16)
2312: y(6)	c(20)	x(-14)	c(21)	x(-15)	2332: y(6)	c(22)	x(-16)	c(23)	x(-17)
2313: y(5)	c(20)	x(-15)	c(21)	x(-16)	2333: y(5)	c(22)	x(-17)	c(23)	x(-18)
2314: y(4)	c(20)	x(-16)	c(21)	x(-17)	2334: y(4)	c(22)	x(-18)	c(23)	x(-19)
2321: y(3)	c(20)	x(-17)	c(21)	x(-18)	2341: y(3)	c(22)	x(-19)	c(23)	x(-20)
2322: y(2)	c(20)	x(-18)	c(21)	x(-19)	2342: y(2)	c(22)	x(-20)	c(23)	x(-21)
2323: y(1)	c(20)	x(-19)	c(21)	x(-20)	2343: y(1)	c(22)	x(-21)	c(23)	x(-22)
2324: y(0)	c(20)	x(-20)	c(21)	x(-21)	2344: y(0)	c(22)	x(-22)	_c(23)	x(-23)

Fig. 24

2570 2500 MEMORY / RECHSTER PORTIS) *2511* Dual MAC 25/2 Dual 2530 MAC BUFFER BUFFER 253/ Dual 25/4 ,2520 MAC 2532 Dual 252/ Dual MAC MAC BAFFER BUFFER 2522 Dual 2533 2534 2540 BUFFER BUFFER 2523 2524 254/ Ouar MAC 2542 Oual MAC EXECUTION MAC UNIT BLOCK BUFFER BUFFER C25#3 CONTROL JUZ550 F14. 25



				Computati	on Cycle N				
MAC	1 <sup>st</sup>	3 <sup>rd</sup>	2 <sup>nd</sup>	4 <sup>th</sup>	MAC	1 <sup>st</sup>	3 <sup>rd</sup>	2 <sup>nd</sup>	4 <sup>th</sup>
Ì	MAC	MAC	MAC	MAC		MAC	MAC	MAC	MAC
	Input	Input	Input	Input		Input	Input	Input	Input
2511: y(6)	c(28)	x(-22)	c(29)	x(-23)	2531: y(6)	c(30)	x(-24)	c(31)	x(-25)
2512: y(4)	c(28)	x(-24)	c(29)	x(-25)	2532: y(4)	c(30)	x(-26)	c(31)	x(-27)
2521: y(2)	c(28)	x(-26)	c(29)	x(-27)	2541: y(2)	c(30)	x(-28)	c(31)	x(-29)
2522: y(0)	c(28)	x(-28)	c(29)	x(-29)	2542: y(0)	c(30)	x(-30)	c(31)	x(-31)
				Computation	n Cycle N+1		<del>/</del>		
MAC	1 <sup>st</sup>	3 <sup>rd</sup>	2 <sup>nd</sup>	4 <sup>th</sup>	MAC	1 <sup>st</sup>	3 <sup>rd</sup>	2 <sup>nd</sup>	4 <sup>th</sup>
	MAC	MAC	MAC	MAC		MAC	MAC	MAC	MAC
	Input	Input	Input	Input		Input	Input	Input	Input
2511: y(6)	c(24)	x(-18)	c(25)	x(-19)	2531: y(6)	c(26)	x(-20)	c(27)	x(-21)
2512: y(4)	c(24)	x(-20)	c(25)	x(-21)	2532: y(4)	c(26)	x(-22)	c(27)	x(-23)
2521: y(2)	c(24)	x(-22)	c(25)	x(-23)	2541: y(2)	c(26)	x(-24)	c(27)	x(-25)
2522: y(0)	c(24)	x(-24)	c(25)	x(-25)	2542: y(0)	c(26)	x(-26)	c(27)	x(-27)
tund tund thors		-			n Cycle N+2			·	
MAC	1 <sup>st</sup>	3 <sup>rd</sup>	$2^{\rm nd}$	4 <sup>th</sup>	MAC	1 <sup>st</sup>	3 <sup>rd</sup>	2 <sup>nd</sup>	4 <sup>th</sup>
Harmonic Market States	MAC	MAC	MAC	MAC		MAC	MAC	MAC	MAC
	Input	Input	Input	Input		Input	Input	Input	Input
2511: y(6)	c(20)	x(-14)	c(21)	x(-15)	2531: y(6)	c(22)	x(-16)	c(23)	x(-17)
25 [2: y(4)	c(20)	x(-16)	c(21)	x(-17)	2532: y(4)	c(22)	x(-18)	c(23)	x(-19)
2521: y(2)	c(20)	x(-18)	c(21)	x(-19)	2541: y(2)	c(22)	x(-20)	c(23)	x(-21)
2522: y(0)	c(20)	x(-20)	c(21)	x(-21)	2542: y(0)	c(22)	x(-22)	c(23)	x(-23)

Hand Hand

F19.26

2770 1700 MEMBRY / REGISTER PORT (S Z7// Dual MAC 2710 Z7/Z Dual 2730 MAC BUFFER BUFFER 273/ Dual 2713 27/4 MAC 2720 2732 Dual 272/ Dual MAC MAC BUFFOR BUFFOR 2722 Dual W. 2740174 2733 MAC State of the state g s BURBL BURBL 274/ Dual 1272Y Series Juni MAC 2773 2742 Dual C. MAC EXECUTION F. 3. MAC 100 UNIT BLOCK BUFFER BUFFER A The Street of State of the last Contrac LOGIC 2750



					Computat	ion Cyc	le N			· · · · · · · · · · · · · · · · · · ·	
M	AC	1 <sup>st</sup>	3 <sup>rd</sup>	2 <sup>nd</sup>	4 <sup>th</sup>	M	AC	$1^{\rm st}$	3 <sup>rd</sup>	2 <sup>nd</sup>	4 <sup>th</sup>
		MAC	MAC	MAC	MAC			MAC	MAC	MAC	MAC
		Input	Input	Input	Input			Input	Input	Input	Input
2711	y(7)			c(29)	x(-19)	2731	y(7)			c(31)	x(-20)
	y(6)	. c(28)	x(-19)				y(6)	c(30)	x(-20)		
2712	y(5)			c(29)	x(-20)	2732	y(5)			c(31)	x(-21)
	y(4)	c(28)	x(-20)			1	y(4)	c(30)	x(-21)		
2721	y(3)			c(29)	x(-21)	2741	y(3)			c(31)	x(-22)
	y(2)	c(28)	x(-21)				y(2)	c(30)	x(-22)		· · · · · · · · · · · · · · · · · · ·
2722	y(1)			c(29)	x(-22)	2742	y(1)			c(31)	x(-23)
	y(0)	c(28)	x(-22)			1	y(0)	c(30)	x(-23)		
/47 u =-8%				(	Computatio	n Cycle					<del></del>
2711	AC	1 <sup>st</sup>	3 <sup>rd</sup>	2 <sup>nd</sup>	4 <sup>th</sup>	M	AC	1 <sup>st</sup>	3 <sup>rd</sup>	2 <sup>nd</sup>	4 <sup>th</sup>
7 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1		MAC	MAC	MAC	MAC			MAC	MAC	MAC	MAC
### ###		Input	Input	Input	Input			Input	Input	Input	Input
2711	y(7)			c(25)	x(-17)	2731	y(7)			c(27)	x(-18)
, j =	y(0)	c(24)	x(-17)				y(6)	c(26)	x(-18)		
2712	y(5)			c(25)	x(-18)	2732	y(5)			c(27)	x(-19)
B .	y(4)	c(24)	x(-18)				y(4)	c(26)	x(-19)		
2721	y(3)			c(25)	x(-19)	2741	y(3)			c(27)	x(-20)
#= !.!	y(2)	c(24)	x(-19)				y(2)	c(26)	x(-20)		
2722	y(1)			c(25)	x(-20)	2742	y(1)			c(27)	x(-21)
	y(0)	c(24)	x(-20)				y(0)	c(26)	x(-21)		
					Computatio	n Cycle	N+2				
$\mathbf{M}^{A}$	/C	1 <sup>st</sup>	3 <sup>rd</sup>	2 <sup>nd</sup>	4 <sup>th</sup>	M/	AC	$1^{st}$	3 <sup>rd</sup>	2 <sup>nd</sup>	4 <sup>th</sup>
		MAC	MAC	MAC	MAC			MAC	MAC	MAC	MAC
		Input	Input	Input	Input			Input	Input	Input	Input
2711	y(7)			c(21)	x(-15)	2731	y(7)			c(23)	x(-16)
	y(6)	c(20)	x(-15)	- V			y(6)	c(22)	x(-16)		
2712	y(5)			c(21)	x(-16)	2732	y(5)			c(23)	x(-17)
	y(4)	c(20)	x(-16)				y(4)	c(22)	x(-17)		
2721	y(3)			c(21)	x(-17)	2741	y(3)			c(23)	x(-18)
0.75.	y(2)	c(20)	x(-17)				y(2)	c(22)	x(-18)		
2722	y(1)			c(21)	x(-18)	2742	y(1)			c(23)	x(-19)
	y(0)	c(20)	x(-18)				y(0)	c(22)	x(-19)	_	